# Thermafiber® Industrial Insulation

# Semi-flexible Metal Mesh Blankets are designed for use in high temperature applications on boilers, tanks, vessels, ducts, large pipes and other cylindrical surfaces. Metal Mesh Blankets are available with galvanized metal mesh or stainless steel wire mesh stitched to the blanket for exceptional durability. Wire mesh can be applied to one or both sides of the blanket.

### Metal Mesh Blankets

- + Excellent thermal performance
- + Non-combustible, non-deteriorating, & inorganic
- + Flexible insulation ideal for cylindrical surfaces
- + Engineered for high temperature applications (up to 1200°F, 649°C)
- + Non-corrosive
- + Controls noise and sound









## Thermafiber® Industrial Insulation

### Description:

Thermafiber Metal Mesh Blankets are made from preformed mineral wool insulation that is stitched to various metal facings. The flexible blankets are easy to cut, install, and form around curved surfaces or irregular shapes. Widely used for insulating utility boilers, ducts, precipitators, tanks, expansion joints, cylindrical refinery applications, power and process equipment, and other industrial applications. Metal Mesh blankets are a durable and economical solution for multiple applications where thermal shock and vibration are present.

### Product Options:

Multiple metal facings are available on one or both sides of Metal Mesh Blankets. Custom combinations of facings are available upon request.

- Galvanized Hex Wire Mesh
- Stainless Steel Hex Wire Mesh

### Installation:

Metal Mesh Blankets should be mechanically fastened to the hot surface needing insulation. For cylindrical surfaces, metal angles, welded insulation pins, studs, or metal banding can be used to secure the insulation. For flat surfaces, blankets can be impaled over insulation pins or studs. Metal mesh facings of adjacent blankets should be laced together with 16-ga. galvanized, annealed wire to keep joints tight. When insulation will be exposed to high air velocities, adequate protection must be provided to prevent erosion of insulation. On initial startup only, heat rise should not exceed 15°F (9°C) per minute to allow binder to dissipate.

### Standard Sizes:

	Thickness*	Width	Lengths	Packaging
Metal Mesh 60	1"-4" (25mm-100mm)	24" (610mm)	48", 96", 120" (1.2m, 2.4m, 3.05m)	Palletized or Rolls
Metal Mesh 80	1"-4" (25mm-100mm)	24" (610mm)	48", 96", 120" (1.2m, 2.4m, 3.05m)	Palletized or Rolls

\*Thicknesses are available in 1/2" (13mm) increments. Custom sizes are available upon request.

### Technical Data:

		Thermal Conductivity Tested to ASTM C 177  Mean Temperature, k-Factor = BTU in/ft2 h °F (W/mK)				
	Actual Density	75°F (30°C)	200°F (93°C)	300°F (149°C)	500°F (260°C)	700°F (371°C)
Metal Mesh 60	6.0 pcf (96 kg/m3)	0.24 (0.035)	0.30 (0.043)	0.38 (0.055)	0.56 (0.081)	NA
Metal Mesh 80	8.0 pcf (128 kg/m3)	0.24 (0.035)	0.29 (0.042)	0.35 (0.050)	0.53 (0.076)	0.73 (0.105)

	Maximum Service temperature	Tested to ASTM E 84		
	Tested to ASTM C 411	Flame Spread	Smoke Developed	
Metal Mesh 60	1200°F (649°C)	0	0	
Metal Mesh 80	1200°F (649°C)	0	0	

### Acoustical Performance:

	Coefficients at Frequencies Per ASTM C 423							
	Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Metal Mesh 60	2" (50mm)	0.36	0.79	1.15	1.04	1.01	1.04	1.00
	4" (100mm)	1.15	1.17	1.18	1.03	1.06	1.08	1.10
Metal Mesh 80	2" (50mm)	0.35	0.84	1.08	1.04	0.96	0.93	1.00
	4" (100mm)	0.49	1.11	1.11	1.14	0.97	0.64	1.10

### Standards Compliance:

ASTM E 136 Rated Non-combustible per NFPA Standard 220 HH-I-558B Federal Spec - Form C, Class 10 & 11

MIL-I-24244 Meet applicable analysis for austenitic stainless steel

ASTM C 592 Type I & II

ASTM C 612 Metal Mesh 60 - 1A, 1B, II ASTM C 612 Metal Mesh 80 - 1A, 1B, II, III

ASTM C 795 Complies

**ASTM C 1104** Absorption less than 1% by volume ASTM C 356 Linear shrinkage <2% @ 1200° F (650°C)

### For Further Information:

For additional information about these or other Thermafiber products contact us at 1-888-834-2371 or visit our website www.thermafiber.com.

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### Submittal Approvals:



Project Approval Date

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